

Lineplots

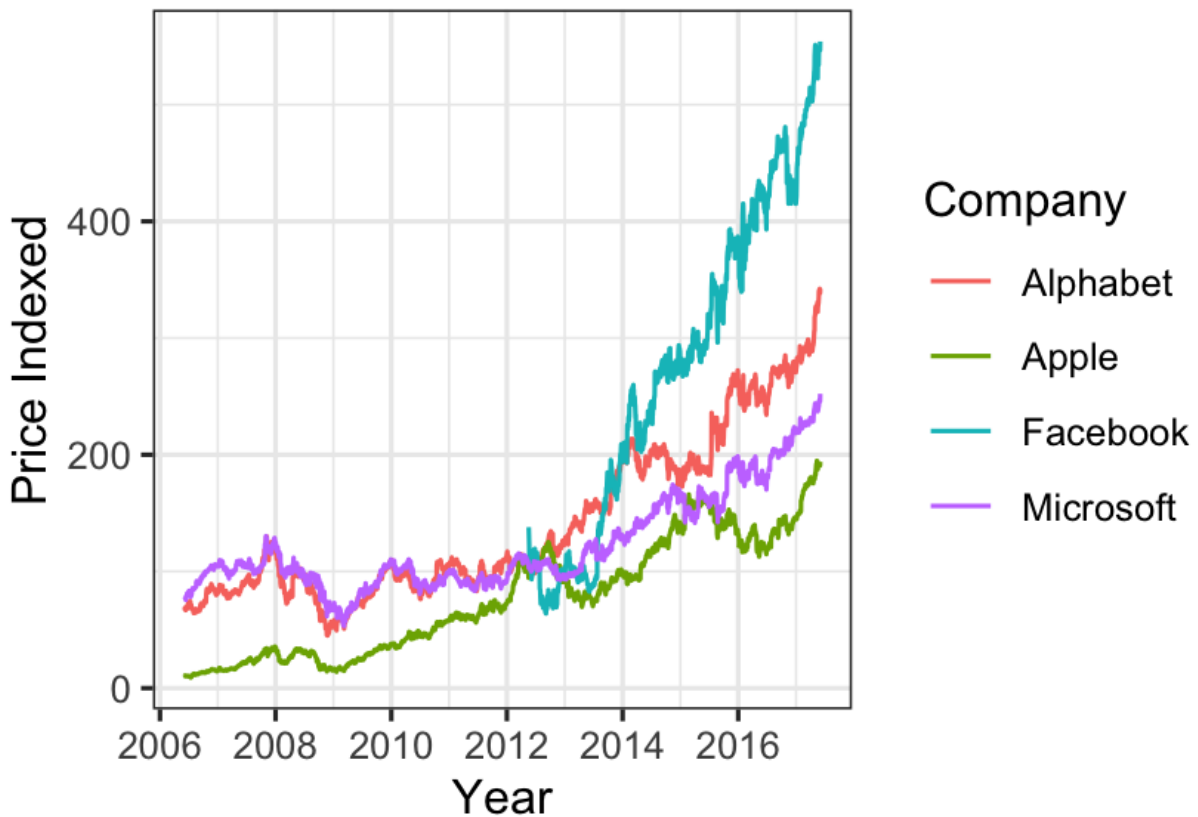
Simple Line plot

```
stocks_apple <- stocks[which(stocks$company == "Apple"),]  
  
ggplot(data = stocks_apple,  
  
mapping = aes(x = date,  
y = price_indexed)) +  
  
geom_line()
```

Line Plot with different color for Each Group (Categorical Variable)

```
ggplot(data = stocks,  
mapping = aes(x = date,  
y = price_indexed,  
color = company)) + geom_line() +  
labs(x = "Year", y = "Price Indexed", color="Company") +  
ggtitle("Stock price over time")
```

Stock price over time



Line Plot with different color for Each group (Numeric Variable)

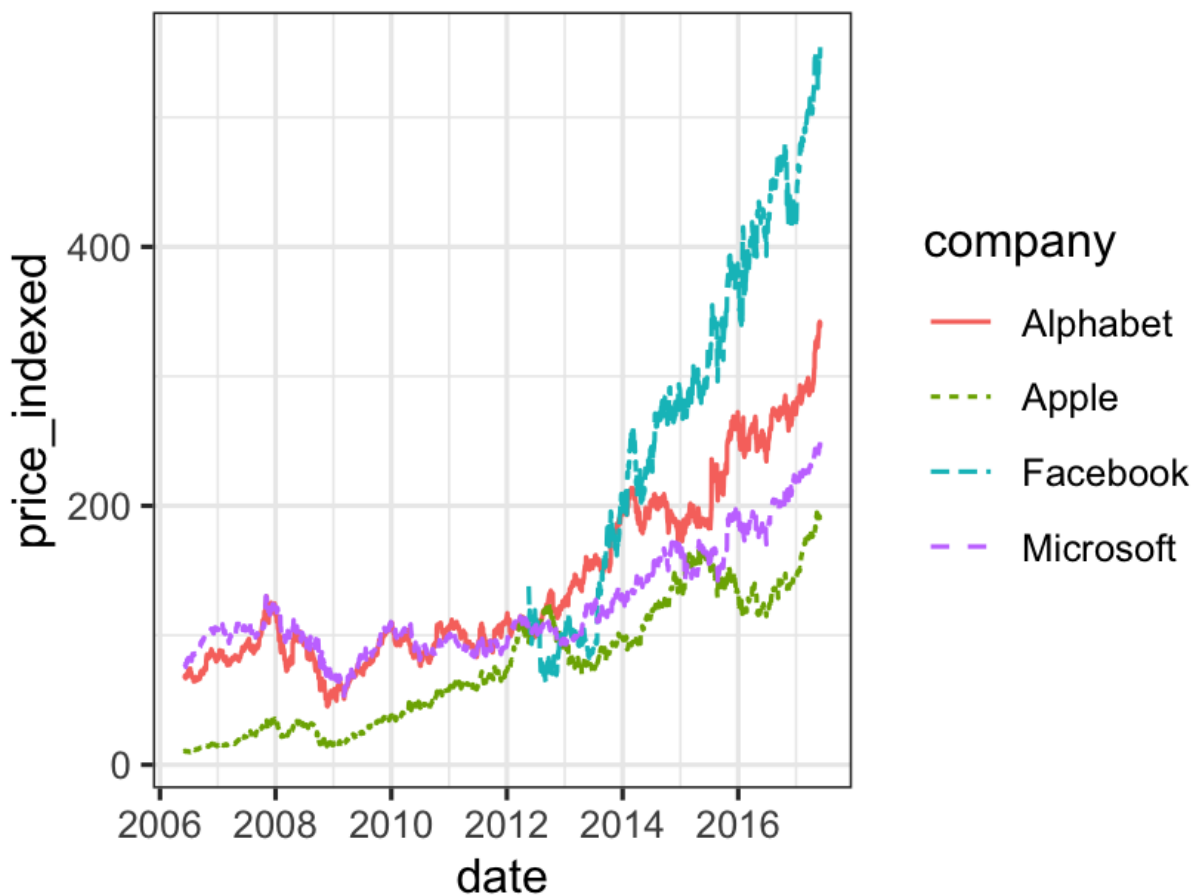
```
ggplot(data = mtcars,  
  mapping = aes(x = disp,  
    y = mpg,  
    color =  
    as.factor(cyl))) +  
  geom_point()
```

*Should add as.factor()

Redundant Coding

```
ggplot(data = stocks,  
mapping = aes(x = date,  
               y = price_indexed,  
               color=company,  
               group=company,  
               linetype=company)) +  
  geom_line()
```

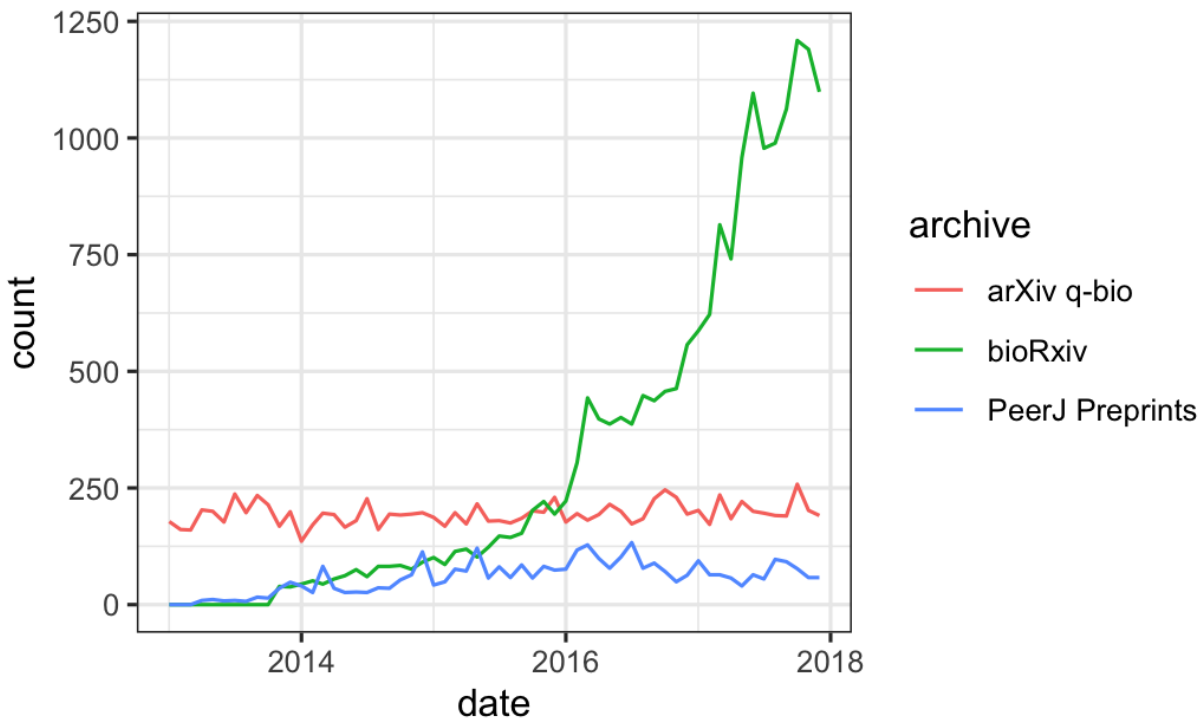
*We are using both linetype and color to encode same info , choose one !



Line Plot

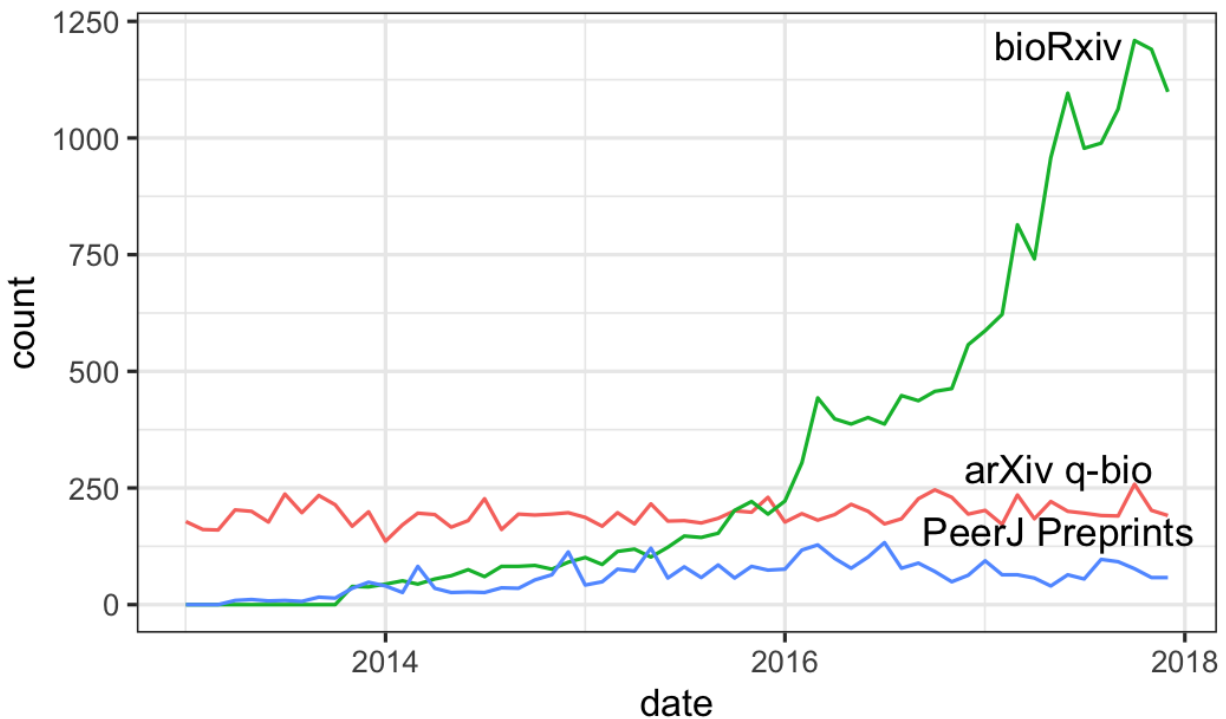
```
ggplot(data = economics,  
  mapping = aes(  
    x = date,  
    y = unemploy  
  )  
  ) + geom_line()
```

```
load("preprint_growth.rda")  
library(ggpmisc)  
  
preprint_growth_filter <- preprint_growth %>%  
  mutate(year=year(date)) %>%  
  filter(archive %in% c("bioRxiv", "arXiv q-bio", "PeerJ Preprint"),  
    between(year, 2013, 2017))  
  
ggplot(data = preprint_growth_filter,  
  mapping = aes(  
    x = date,  
    y = count,  
    color = archive  
  )) + geom_line()
```



Remove legend

```
ggplot(data = preprint_growth_filter,
  mapping = aes(
    x = date,
    y = count,
    color = archive
  )) + geom_line() +
geom_text(data=, %>%
  filter(date==max(date)),
  aes(label=archive),
  nudge_x=-200,
  nudge_y=100,
  color="black",
  size=4) + theme(legend.position="None")
```



Labeled

```
economics_new <- economics %>%
  mutate(label=ifelse(
    date %in% c(ymd("1969-12-01"), ymd("1973-11-01"),
               ymd("1980-01-01"), ymd("1981-07-01"),
               ymd("1990-07-01"), ymd("2001-03-01"),
               ymd("2007-12-01")),
    format(date, "%h %Y"), "")
  )

ggplot(data = economics_new,
       mapping = aes(
         x = date,
         y = pce
       )) + geom_point() +
  geom_text_repel(aes(label=label), color="black",
```

```
nudge_y = -1500, nudge_x=50,  
min.segment.length = 0, size = 8/.pt, max.overlaps=nrow(econ
```

